

**UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

SONRAI MEMORY LIMITED,

Plaintiff,

Case No. 6:21-cv-00400-ADA

v.

KIOXIA CORPORATION and KIOXIA  
AMERICA, INC.

Defendants.

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SONRAI MEMORY LIMITED,

Plaintiff,

Case No. 6:21-cv-00361-ADA

v.

DELL TECHNOLOGIES,  
INC.

Defendant.

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SONRAI MEMORY LIMITED,

Plaintiff,

Case No. 6:21-cv-00401-ADA

v.

APPLE INC.,  
Defendant.

SONRAI MEMORY LIMITED,  Plaintiff,  v.  GOOGLE LLC,  Defendant.	Case No. 6:21-cv-00167-ADA
SONRAI MEMORY LIMITED,  Plaintiff,  v.  LG ELECTRONICS INC., LG ELECTRONICS U.S.A., INC.,  Defendants.	Case No. 6:21-cv-00168-ADA
SONRAI MEMORY LIMITED,  Plaintiff,  v.  SAMSUNG ELECTRONICS CO., LTD., SAMSUNG ELECTRONICS AMERICA, INC.,  Defendants.	Case No. 6:21-cv-00169-ADA
SONRAI MEMORY LIMITED,  Plaintiff,  v.  WESTERN DIGITAL TECHNOLOGIES, INC.,  Defendant.	Case No. 6:21-cv-01168-ADA

**JOINT CLAIM CONSTRUCTION STATEMENT**

## I. Undisputed Constructions

The parties do not dispute that the following terms should have the following constructions:

Term	Undisputed Construction
“coupled to each load” (’241 patent, claim 6) (proposed by Plaintiff)	“coupled to each corresponding load”
“each load selector means” (’241 patent, claim 7) (proposed by Defendants)	the “load selector means”
“the output pump” ’241 patent, claims 6 and 11 (proposed by Plaintiff)	“the output of the pumping circuit”
“target output pump selector” (’241 patent, claim 2) (proposed by Defendants)	Means-plus-function limitation.  Function: “shutting down the variable charge pump circuit when the target output pump voltage (Vcfra) is greater than or equal to a reference voltage (Vref)”  Corresponding structure: first comparator 702
“multiple operating systems residing in a memory” (’014 patent, claims 1 and 7) (proposed by Defendants)	“multiple operating systems residing in the same memory”
“multiple processors are connected to said memory via a bus” (’014 patent, claim 3) (proposed by Defendants)	“multiple processors are connected to said memory via the same bus”

## II. Disputed Constructions

#	Term	Plaintiff's Proposed Construction	Defendants' Proposed Construction
1	“A charge pump circuit for generating a charge pump voltage having minimal voltage ripples” ('241 patent, preamble of claim 1) (proposed by Defendants)	The preamble is limiting, but only with regard to “charge pump circuit” and not “for generating a charge pump voltage having minimal voltage ripples”	The preamble is limiting and should be given its plain and ordinary meaning.
2	“load” ('241 patent, claim 1) (proposed by Defendants)	Plain and ordinary meaning	“a device that absorbs surplus charge to significantly reduce voltage ripple compared to a case without the device”
3	“a load selector means for selectively coupling a load associated with a specific pump voltage to the output of said pumping circuit” ('241 patent claim 1) (proposed by Defendants)	<p>Plain and ordinary meaning; not subject to § 112 ¶ 6.</p> <p>Alternatively, should § 112 ¶ 6 apply:</p> <p>Function: selectively coupling a load associated with a specific pump voltage to the output of said pumping circuit</p> <p>Corresponding structure: Switches 320, 324, 328 and associated signals EN_A, EN_B, EN_C, as shown in figures 3, 5A, 5B, and switches 720, 724, 728 and associated signals EN_A, EN_B, EN_C, as shown in Figure 7, as well as associated descriptions of each in the specification.</p>	<p>This is a means-plus-function limitation.</p> <p>Function: “selectively coupling a load associated with a specific pump voltage to the output of said pumping circuit,” which means “choosing a load based on the target pump voltage, such that the load is coupled to the output of the pumping circuit when the target pump voltage is selected”</p> <p>Corresponding structure: the three switches 320, 324, and 328 together with their respective control signals EN_A, EN_B, and EN_C and the controller that generates the signals</p>

#	Term	Plaintiff's Proposed Construction	Defendants' Proposed Construction
4	“target output selector means” (’241 patent, claim 3) (proposed by Defendants)	“load selector means”	Indefinite, or alternatively, means-plus-function limitation. If means-plus-function:  Function: “adding a load, whenever a maximum ripple on the target output voltage (Vcfrb) greater than the reference voltage (Vref) then the maximum ripple on the target output selector means adds additional loads until the Vcfrb voltage is less than or equal to the reference voltage (Vref)”  Corresponding structure: second comparator 714, logic circuit 712, resistor 708, resistor 710, and set load switch 716
5	“portable memory apparatus” (’527 patent, claims 1 and 15) (proposed by Defendants)	Plain and ordinary meaning	“an external data storage device for carrying data from one computer system to another computer system”
6	“wherein, when said connector couples said portable memory apparatus to said computer system, said memory controller chip copies data from said non-volatile memory to said volatile memory, and said computer system accesses said data in said volatile memory through said connector” (’527 patent, claim 1) (proposed by Defendants)	Plain and ordinary meaning	Indefinite

#	Term	Plaintiff's Proposed Construction	Defendants' Proposed Construction
7	“when said connector couples said portable memory apparatus to said computer system, said memory controller chip copies data from said non-volatile memory to said volatile memory” ('527 patent, claim 1) (proposed by Defendants)	Plain and ordinary meaning	“at the time the portable memory apparatus is connected to the computer system, said memory controller chip copies data from said non-volatile memory to said volatile memory”
8	“data” ('527 patent, all claims) (proposed by Defendants)	Plain and ordinary meaning	“user data”
9	“wherein said memory controller chip transfers said non-volatile memory with data written to said volatile memory from said computer system while said portable memory apparatus is coupled to said computer system” ('527 patent, claim 6) (proposed by Defendants)	Plain and ordinary meaning	Indefinite
10	“A method for regenerating a clock signal in a synchronous semiconductor memory, such method comprises the following steps” ('232 patent, preamble of claim 14) (proposed by Plaintiff)	The preamble is limiting	The preamble is not limiting except for “clock signal”
11	“detecting a rise edge from a low logical level and a fall edge from a high logical level of said clock signal” ('232 patent, claim 14) (proposed by Defendants)	Plain and ordinary meaning	“detecting the clock signal passing above a low threshold level set for the low logical level of the clock, and the clock signal passing below a high threshold voltage level set for the high logical level of the clock”

Dated: February 15, 2022

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

I hereby certify that the counsel of record who are deemed to have consented to electronic service are being served on February 15, 2022 with a copy of this document via the Court's ECF system.

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